

Remarks

Of claims 1, 3 and 5 to 8 previously pending in this application, independent claims 1, 7 & 8 have each been amended in a manner considered to address the Examiner's claim rejections. Claim 5 has been amended to correct its claim dependency. In addition, new claims 9 to 22 are added to identify previously unclaimed features of the system and method of the invention. No additional fee is due.

Referring to the claim rejections, Born et al (US5058206) discloses an all optical network in a ring configuration in which optical switching devices (2) employ fused coupler switches (21, 22, 23) for conveying data and control signals between adjacent optical switching devices (2) and between the optical switching devices (2) and respective external stations (4). The fused fiber couplers (3) of the fused coupler switches (21, 22, 23) each function to separate control signals (c) issued by the external stations (4) from information signals (d) being transmitted to the stations. Therefore, the all optical information transmission system of Born, while distinguishing information signals from control signals in the optical domain by transmission wavelength and/or polarization and/or direction of transmission, does not disclose or suggest transmitting a set of channels on each of the two networks comprising the system in opposite directions with respect to the nodes nor the use of periodic interleaving filters for selectively dropping transmission channels from said sets of channels to respective nodes on said networks.

Consequently, Born does not disclose all of the features of the present invention as now defined and therefore does not anticipate the present invention. The rejection of the claims under 35 U.S.C. §102 therefore cannot be sustained.

Hamel et al (EP631405A1) is representative of the prior art systems already acknowledged in the present application as described with reference to figure 1 (see

specification of the present application, page 3, line 24 through to page 4, line 22). As such, it displays the very problems that the present invention addresses. For example, the couplers employed in Hamel are lossy devices which, while affording good flexibility with respect to the adding and dropping of channels at nodes, reduce the reach of such networks. Further, such coupler devices are expensive and prohibit such network architectures being employed in access networks, for example.

The present invention comprises a recognition that it is possible to extend the reach of such networks and/or to employ such network architectures where cost would normally be prohibitive by replacing the expensive add/drop couplers (filters) with inexpensive periodic interleaving filters such as fused fiber couplers. However, in doing so, the present invention accepts a trade-off between achieving the greater reach and/or new deployment environments for a reduction in the flexibility of the novel network's ability to add/drop channels at nodes/access points.

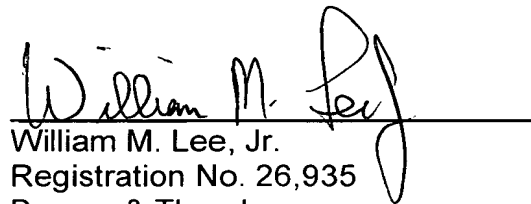
The Examiner argues that one of ordinary skill would consider incorporating the fused fiber couplers as taught by Born in the system of Hamel. Applicant strongly denies this. The fused fiber couplers as taught by Born are not employed in that network for splitting (and adding) channels at nodes from sets of channels being transmitted in the fibre networks of the system. Networks such as that disclosed in Hamel and indeed acknowledged as prior art in the present application have been widely deployed worldwide. Despite the ever constant motivation to increase the reach, efficiency, flexibility and reduce the high cost of such networks, it has hitherto never been proposed to sacrifice the flexibility of such a network in order to improve the reach and/or be able to deploy such a network in an environment, such as an access network, previously regarded as not economically feasible. To arrive at the Examiner's position requires the impermissible use of hindsight. It is submitted that the Examiner must explain why, given the prevalence worldwide of networks such as disclosed in Hamel and in view of the ever constant motivations mentioned above, one of ordinary skill would be motivated by the teaching of Born to modify the

network architecture of Hamel thereby decreasing the flexibility of the resulting network. This conclusion can only be arrived at with the novel arrangement of the present invention in mind.

Applicants therefore request favorable reconsideration of the claims as currently amended.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line.

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